

# DYNAMIC TUNNEL PROBING IN A COMMUNICATIONS NETWORK

## Abstract of the Disclosure

5       Methods, apparatuses and systems allowing for dynamic detection of network devices, located along communications paths associated with a computer network, that include compatible transformation tunneling capabilities. In one embodiment, a tunnel probing device, having transformation tunneling capabilities, monitors data flows to respective destination hosts and probes for other network devices, having  
10 compatible transformation tunneling capabilities, located along respective communications paths to the destination hosts. A network device in a communications path, recognizing probes transmitted by the tunnel probing device, responds to the probe by communicating its transformation tunneling capabilities, and passes the probe along the path to the destination host for possible recognition by  
15 other compatible network devices. The present invention allows for recognition and optimization of network traffic between network devices without prior configuration.